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# Small City Transit

EUGENE/SPRINGFIELD,  
OREGON:

Extensive County-Wide  
Transit Coverage



Dept. of Transportation

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U. S. DEPARTMENT OF TRANSPORTATION  
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*Transit*  
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Preface

This document was prepared by the Transportation Systems Center (TSC) as part of the information dissemination function of the Office of Service and Methods Demonstrations, Urban Mass Transportation Administration. This case study is one of thirteen studies of public transit systems in small communities and is intended to serve as an information resource for other communities in the process of planning or considering public transportation.

The information presented in this document is based on a visit to the site, interviews and phone conversations with the principals involved, and operating records obtained during 1975. The authors gratefully acknowledge the cooperation of local officials and transit operators at all of the sites selected for study, and of the TSC staff in compiling the information gained from these studies and assisting in its interpretation.



EUGENE/SPRINGFIELD, OREGON: Extensive  
County-Wide Transit Coverage

Since the 1927 demise of streetcar service, which became unprofitable to operate, "mass" transit for the people of Eugene/Springfield, Oregon, has been provided exclusively by buses. In 1951, 1956 and again in 1970 the ownership of the privately operated bus companies changed hands after failing to attract the necessary ridership to sustain profitable operations. With the existing system losing money, the Central Lane Planning Council of Eugene, encouraged by the Central Lane County League of Women Voters, contracted with a private consulting firm to define transit service conditions and to propose needed actions. Ridership projections from this study estimated that with a concentrated effort, 7,000 passengers per day were possible within ten years. Following public takeover of the fixed-route bus system in 1970, ridership has grown steadily and has reached sustained levels that exceed earlier projections, increasing from 2,200/day to 12,000/day in only 5 years.

Located 120 miles south of Portland, in Lane County, the "twin cities" of Eugene/Springfield comprise the second largest metropolitan area in Oregon. Approximately 94,000 people live in the city of Eugene, and another 75,000 in neighboring Springfield and the surrounding urbanized area. In addition, Lane County includes a rural and satellite city population of 36,000, for a total regional population of 205,000.

The college population of Eugene numbers over 23,000 students, 16,000 of which are enrolled at the University of Oregon and the remainder being enrolled at the Lane Community College. Lane County's primary industries revolve around lumber mills and associated lumber products. Serving this industry is one of the largest maintenance and make up yards of the Southern Pacific Railway, located in Eugene. The median family income in Lane County is approximately \$10,000.

The residents of Eugene/Springfield typify Oregon's strong interests in ecology and community affairs. Mass transit development and its availability are rated high among their concerns. This is reflected in an amendment to Eugene's city charter which prohibits further construction of limited access highways unless approved by popular vote. State legislation has established free evening and Saturday transit fares for senior citizens, and has enabled formation of Transit Districts at local government initiative.

A 1965 survey taken by the League of Women Voters showed that mass transit was a needed service, and yet, for all intents and purposes, was only marginally available. Increasing costs of operation, characteristic cutbacks of services and increased fares became both the cause and result of the symptoms that signaled the beginning of the end of all transit services. Thus, in 1967, under continuing urging (primarily from the League of Women Voters), City officials, availing themselves of an UMTA Technical Study Grant, contracted with a transportation consulting firm to study the transportation needs of Eugene/Springfield and to make recommendations on how to implement a transit system to meet these needs.

The study found that only 11% of those who rode transit were "choice" riders (i.e., had access to an automobile) and that 38% of all trips were being made to or from work. Compared to other cities of similar characteristics, Eugene's per capita transit utilization was by far the lowest, while total travel to the central business district (CBD) was essentially the same. Recommendations of the study included public ownership of the transit system, acquisition of new vehicles, service improvements, and a marketing program which would develop and promote a new transit image.

Following the study, the combined City Councils of Eugene and Springfield petitioned the Governor of Oregon to create a transit district (the second within the state). On June 29, 1970, the Lane Transit District (LTD) was formed. Financial support was provided by the authorization of a local employer payroll tax, and a seven member board of directors was appointed by the Governor. On November 23, 1970, LTD formally assumed public operation of the privately operated Emerald Transportation system which consisted of 20 school buses averaging 19 years of age.

Immediate actions taken by LTD were to decrease the fare to 25¢, increase drivers' wages, decrease their hours, and redesign the existing obsolete route system. Within the service area, two entirely new routes were added and the remaining 12 routes covering 127 round-trip miles were realigned to meet an objective of providing two-way service within 1/4 mile of 80% of the population in the 100 square mile region. Additional objectives set by the LTD included:

- provision of two-way service whenever possible with small reverse loops at the end of each route
- routing of all buses through downtown to reduce transfer needs
- avoidance of service duplications



- unique color coding for each route
- abundant availability of route and schedule information
- extended transit service to new areas to establish travel patterns before completion of land development

According to LTD's planning staff, the new routes, which now extend over 705 miles, were designed to meet these objectives and to "provide sensible and coherent service to major activity centers," which includes a large shopping center, the University of Oregon and an eight square block pedestrian mall in the Eugene CBD. The radially configured routes, (Figure 1) intersect at 19 transfer points, or nodes, throughout the system and converge at a central transfer point at the pedestrian mall in the CBD (Figures 2 and 3).

An overlapping characteristic of the routes permits buses starting the weekday routes at 6:30 a.m., and operating on 30 minute headways, to provide 15 minute service intervals between many of the nodes and the downtown area. System reliability is maintained within 2 minutes prior to and 4 minutes after scheduled arrivals. Sixty-minute service headways are maintained in the evening hours, from 6:25 p.m. on, with the last bus leaving the CBD at 11:25 p.m. LTD service characteristics and operating data are summarized at the end of this report.

The fares for this service are adults 30¢, children five to fifteen 15¢, and children under five free. The senior citizens' fare (age 62 and over) is 10¢ during the daytime hours and free during the evening hours. There is also a student fare of 20¢ for the junior high and high school students. In addition, free passes are provided to the school system for students on field trips which are within the service area. Discount tokens are sold four for a dollar to individuals at the transit information center in the pedestrian mall (Figure 4) or to bulk purchasers from LTD. The Associated Students organization of the University takes advantage of the bulk rates and, with subsidies, has further reduced the student price to 20¢. A subscription pass called "fast pass" is also available, which is transferrable and permits unlimited travel for \$12.00 per month.

The enthusiastic response of the approximately 205,000 people being served (including the outlying rural area), has resulted in LTD's experiencing one of the highest reported rates of ridership growth in the nation. From December, 1971 to December, 1972 the ridership increased 136%. From







Figure 2. Buses at Central Transfer Point



Figure 3. Bus Interior



Figure 4. Information Booth at Pedestrian Mall in Eugene

December, 1972 to December, 1973 it was up another 50% and had climbed an additional 32% through December of 1974 to 12,000 passengers per day.

As can be seen in Figure 5, the weekday ridership peaks during the winter months and drops to about 9,000 per day during the summer. During the February, 1974 gas shortage, ridership reached levels of over 15,000 per day.

As shown in Figure 6, tripmaking during the daytime period is more balanced than is typical of most transit operations, with comparatively modest peaking during the periods from 11 a.m. to noon and 3 p.m. to 5 p.m. These levels of attraction reflect high utilization of available seat miles. Vehicle productivity measured in passengers per vehicle hour is 16 with a cost per vehicle hour of \$14.

In 1973 when ridership was 4,500 per day, a survey (the most recent available) was taken which showed that the majority of people (82%) who rode the buses did so either because they did not own a car or had no drivers license. Two-thirds of all the riders were female and 43% of all the riders were between the ages of 20 and 44. Fourteen percent either didn't like to drive or felt that the bus was more convenient. The 1973 survey showed that very few executive or professional people (3%) took advantage of LTD's service while those from other occupations such as clerical, sales, technical, manually skilled or machine operators accounted for 42% of LTD passengers. The survey also showed, that in combination, students and small business managers or operators provide 11% of the total riders, which is the same as the percentage of of elderly and retired patrons. Only 20% of the trips made required a walk to a bus stop in excess of a quarter mile and over 60% of those trips had origins or destinations at home or at work. Trips to school or shopping centers accounted for another 26% of all trip purposes.

Statements of public response to LTD's efforts have appeared periodically in local newspapers. They reflect changing attitudes toward mass transit and demands for still more service: "At a time in my life when I thought I had seen the last of my bus riding days, I'm back on the bus"; "I've been thinking a lot about riding the bus, the snow was a good excuse."; "I think I'll use it more often, it stops just a few blocks from where I live. It's a lot easier than finding a parking place downtown."; "I'd ride more often if the buses ran later."; "I prefer my bike (but) if the bus ran later I would ride it home from work. I'd have to know the schedule better though." (These last two statements were made before the addition of evening service.)



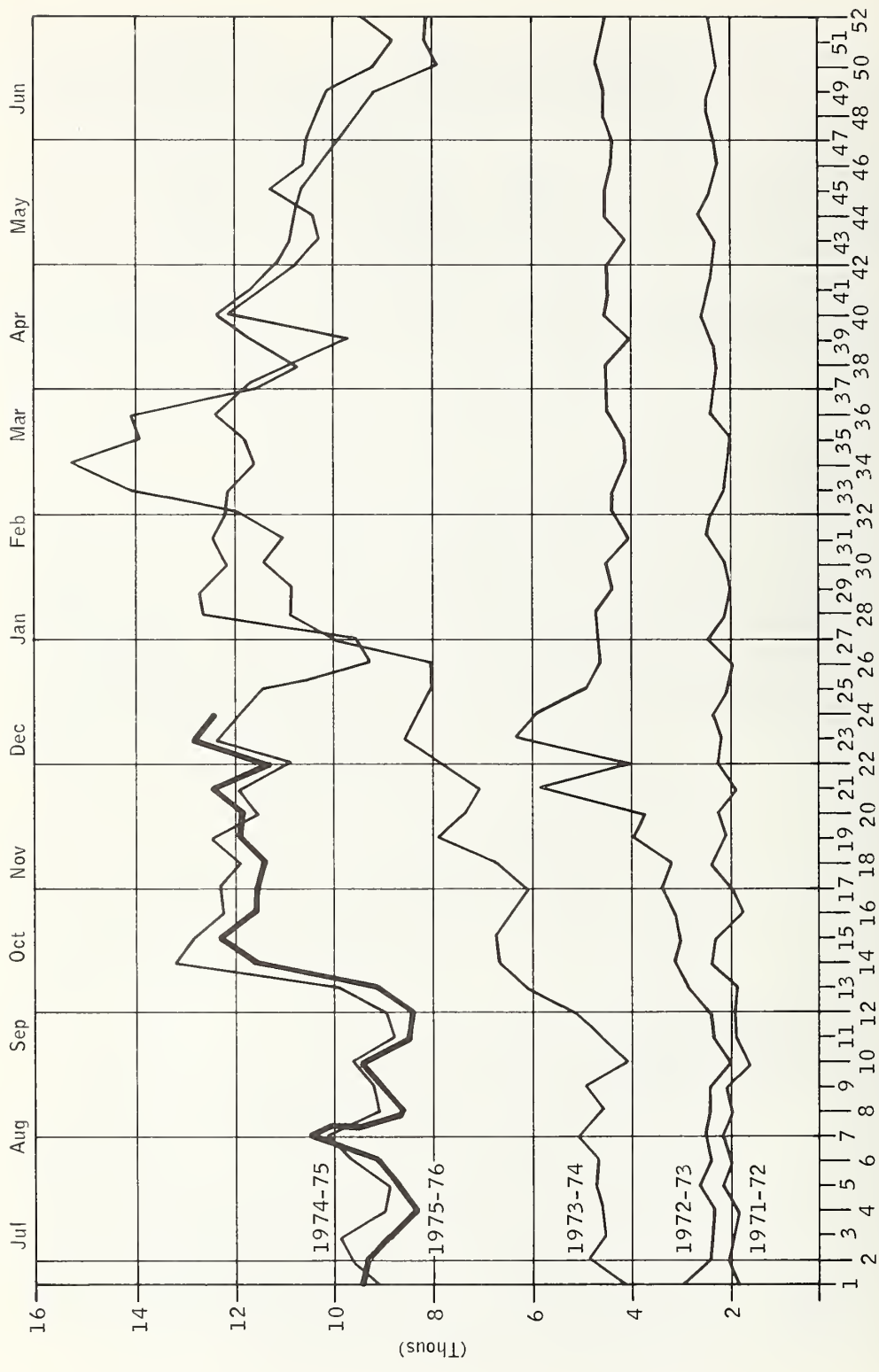


Figure 5. Weekday Person Trips

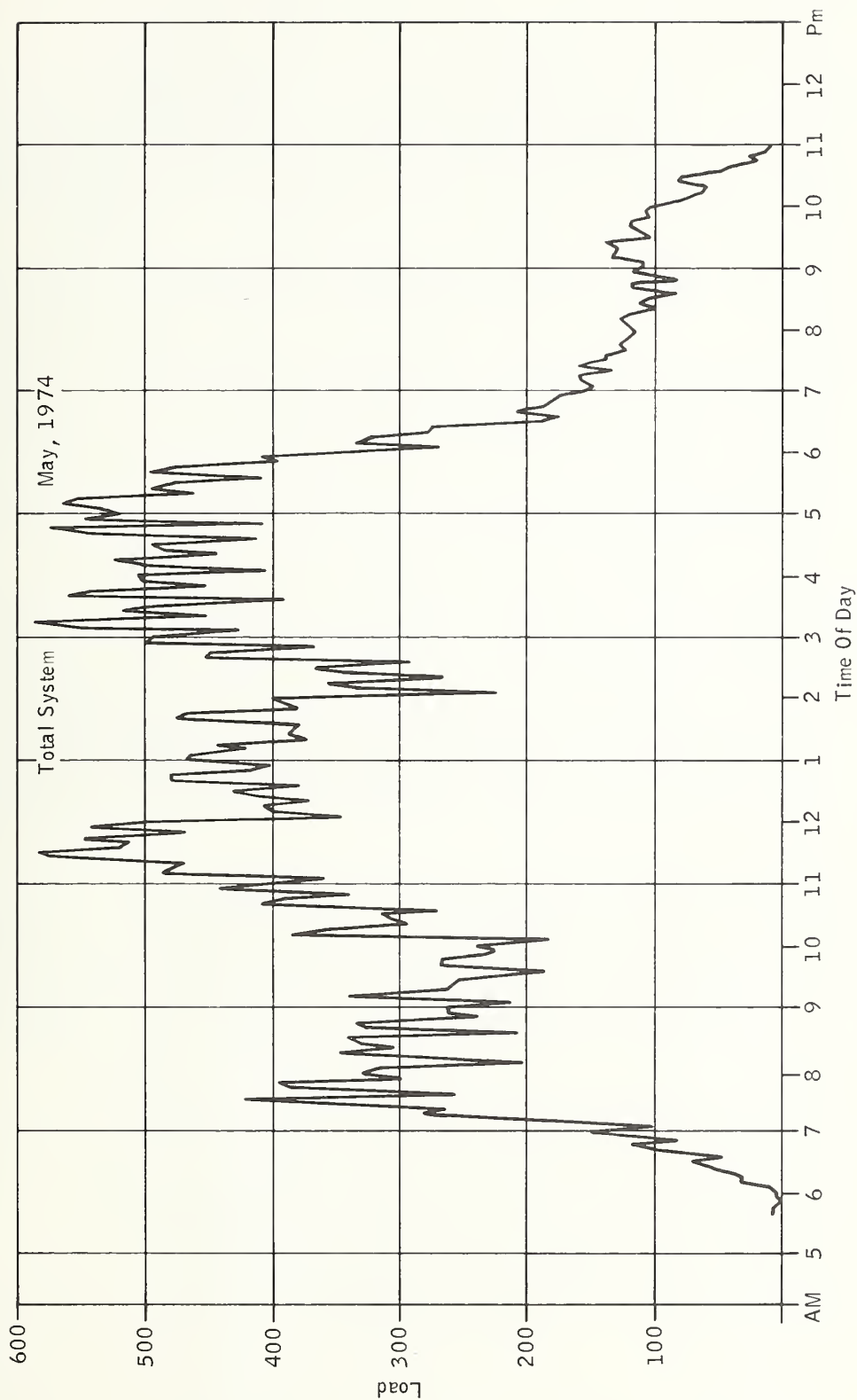


Figure 6. On Board Loads By Time of Day



To date, primary capital improvement expenditures (through 1975 UMTA grants have totaled \$690,000, which represents over half of LTD's fixed assets) have centered around the purchase of new vehicles. Today, the 62 vehicle fleet consists of: 22 1972, 31 passenger gasoline Twin coaches; 19 1947, 36 passenger GMC Diesels; 11 1949-1958, 45-47 passenger GMC's; 8 1960-1964, GMC 49 passenger diesels, and 2 Chevrolet 24 passenger gasoline school buses. Since acquisition of the current fleet and service expansions, the driver work force has increased to 128, and the maintenance facility (judged inadequate by LTD) requires 34 full-time employees to provide 24-hour maintenance service.

In 1974 the cost of all operations rose to over two million dollars, while operating revenue returned only a quarter of that amount (per passenger costs are \$1.07 compared to an average fare of 25¢). Wages paid to operations and administrative personnel amount to 62% of the LTD operating budget. The drivers, mechanics, and operations clerical employees are all members of the local transit union. Almost 69% of the total wages are paid to the drivers. In comparison, fuel and oil amount to only 9% of the current operating budget. Payroll tax collection costs, insurance, loan repayment, and shop and office expenses comprise the major remaining costs.

While state legislation provides for public support of public transit systems through property taxes, user fees, sales taxes and payroll taxes, only the user fee and payroll tax are used as sources of local funding. The payroll tax has varied from 25¢ per \$1,000 to 54¢ per \$1,000 in the last 4 years, beginning at 30¢ per \$1,000 of gross payroll.

Some City Council members charge that this extremely controversial tax is unfair considering the amount of service offered, and businessmen are nearly unanimous in their opposition to its discrimination (government agencies are exempt, and banks were also exempt prior to a restructuring of the state's tax laws). A representative of the Chamber of Commerce recommended, "(LTD) should cut costs, cut service and stop the social service thinking and live within the income that's available." The LTD board has responded that, "when a community provides a service, everyone should help pay for it because everyone benefits to some extent from the availability of that service." Special committees have been established to investigate the remaining financial sources, all of which are potentially just as controversial.\* However, the transit board has recognized that, "Mass transit here will always be on a subsidized basis," and views mass transit as "a public service similar to fire and police services."

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\*At present, there is no sales tax in Oregon, though if one could be levied it would be accompanied by large collection costs.

The budget for improving the public's awareness of the needs and services of LTD accounts for 1% (38,000) of the operating expenses in fiscal 1975-76. At the start of that fiscal year, the district initiated a marketing program with the formulation of an in-house marketing department and a formal marketing plan.

Prior to this development, the district had, through a contractual arrangement with outside consultants, concentrated on increasing public exposure to the transit system and knowledge of the cost advantages that bus service offers over the automobile. All media forms were used, including radio, T.V., newspapers and billboards. LTD's marketing efforts, during this period, received three awards from an Oregon advertising club: best humorous radio series; best series of brochures (schedules); and best billboard series. A recent shift in emphasis has caused a focus on personal contact with riders and potential riders.

Alternate plans through the year 2000 have been developed, the selection of one of which is to guide near term system improvements. These goal oriented improvement plans are supported by UMTA technical study grants and have been developed jointly by the LTD and the Lane Council of Governments. LTD's 5-year Transit Development Program includes improvements in frequency of service, erection of bus stop signs and shelters, inclusion of express and crosstown routes and implementation of demand responsive services for the approximately 10,000 elderly or handicapped citizens.

The extent of LTD's reported successes has been in keeping with a deliberate planning effort that has revived bus service in the "Twin Cities" of Eugene/Springfield. The apparently latent demand that existed has surfaced and characterizes the willingness of urban tripmakers to utilize a sensibly planned and operated public transportation service.

## SUMMARY OF EUGENE TRANSIT SYSTEM CHARACTERISTICS

### DEMOGRAPHICS

Population in service area: 169,000  
Population density: 1,690 persons per square mile  
Median household income: n/a  
Cars owned per household: n/a  
Percent carless households: n/a  
Percent transit dependent: n/a  
Average distance to service: 80% of population in service area are within 1/4 mile of a route

### COVERAGE AND SERVICE

Number of routes: 20  
Average route length (one-way):  
    13 routes - 10 mi.  
    7 routes - 32 mi. (to rural points)  
Average route time (one-way):  
    13 routes - 40 min.  
    7 routes - 60 min.  
Time of service: 6:30 am - 11:30 pm daily  
Average headways:  
    13 routes - 30 min.  
    7 routes - longer  
Number of vehicles: 60  
Number of vehicles in service: 47

### COST AND PRODUCTIVITY

Operating cost per year: \$3,085,000  
Vehicle miles per day: n/a  
Vehicle hours per day: n/a  
Driver hours per day: n/a  
Operating cost per vehicle hour: \$16.90  
Operating cost per vehicle mile: n/a  
Operating cost per passenger trip: \$1.07  
Passengers per vehicle hour: 16  
Passengers per vehicle mile: n/a  
Driver wage rate per hour: \$5.25

### REVENUE AND SUBSIDY

Fares: 30¢ (also free rides and passes)  
Revenue per passenger: \$0.25  
Subsidy per passenger (operating): \$0.82  
Operating ratio: 4.3

Lease or buy vehicles: Buy  
Funding: Capital Cost \$1,189,000

#### RIDERSHIP

Average passengers per weekday: 10,500  
Ridership growth rate: Multiplied by 5 in 5 years  
and stabilized  
Ridership composition:  
minors - 25%  
elderly and handicapped - 15%  
Trip purpose: (1) work, (2) school, (3) shopping





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